

DIGITAL FLUOROSCOPY SYSTEM

Digital Radiography system high quality digital imaging chain, optimal dose conservation with flat panel detector and fluoroscopy system ,capable of taking digital images in horizontal, vertical positions of all skeletal body including spine and chest and should be capable of various fluoroscopic techniques/ applications.

Generator

1. Generator should be of high frequency inverter technology for constant output.
2. 80kw or better high frequency generator 100kv at 800mA.
3. The KV range from 40 to 125KV or better.
4. Should have automatic exposure control system.
6. Should have anatomical programming for radiography.
7. Should have over load protection feature.
8. Should have a digital display for KV and mAs.
9. Should have pulsed fluoroscopy.
10. Should have minimum exposure time of at least 1.0 ms or less.

X-Ray tube and collimator:

1. Should be a high speed rotating anode dual focus tube compatible with the generator
2. Should have focal spot size 0.4/0.6 mm or better (dual focus).
3. Should have a multi leaf collimator having halogen light source with auto shut provision for the light, auto collimation and remote controlled.
4. Should have over load protection.
5. Should have an anode heat capacity of 600KHU or better.

X-Ray Table with detector

1. Should be a carbon fibre/equivalent motorized fixed 6 way movement floating table having a weight carrying capacity of 200kgs or more.
2. The detector for the table should be movable to the entire length of the table. The patient scan range should be about 130 or more
3. It should have automatic exposure control .

4. Tilt range +89, -89 degree Or better.
5. Should have integrated bucky unit for flat panel general radiography and fluoroscopy
6. Possibility to control the table movement from inside the control room.

Digital detector

1. The detector should be a flat panel detector of latest direct digital technology / Amorphous silicon with Cesium Iodide Scintillator.
2. The size of the detector should be 41x41 or better.
3. Should have spatial resolution of 3 lines pair / millimeter or better
4. Detector Quantum Efficiency (DQE) should be 60% or better.
5. The active matrix size should be 2840 x 2840 or better.
6. Should have a minimum image depth of 16 bit or more.

Digital imaging system

1. Two 19" medical grade monochrome monitors should be provided in the examination room with resolution of 1 mega pixel or more.
2. System monitor display for play back images, processed images and multi images etc.
2. Image horizontal and vertical reversal and rotation shall be possible on both monitors from the examination room.
3. The digital workstation should be based on the latest high speed processors of at least 64 bit with 19 inch 1 megapixel or better medical grade monitor.
4. Should have the possibility of acquiring the image from the detector system. Should have preview time 5 seconds or better.
5. Should have image storage capacity of 1 terabyte or at least 60,000 images for 1024x1024 image display monitors.
6. The system should be DICOM compatible and should have networking capability with RIS/HIS/PACS.
7. Option of Multi-modality work list table should be present.
8. Post processing function must be available.
9. Digital Compensation filters.
10. Latest laser jet printer with at least 2 online film trays.
11. CD, DVD - R/W drive should be supplied.

Applications:

1. Contrast enhanced studies and endoscopic studies(digestive tract).
2. General Radiography(general abdominal radiography, general skeletal radiography).
3. Non vascular contrast enhanced studies spine, intervertebral disks, joint cavities, biliary tract, renal pelvis, uterine tubes, urinary system, ERCP, nerve block procedures etc.
4. Angiography(abdomen , shoulders, upper trunk, lower trunk and cervical spine etc)

Country of Origin/Manufacturer should be Europe/USA/Japan.

Accessories

1. 120 kva Online UPS for whole system.
2. 04 Light weight Radiation protection Apron of 0.5 mm lead equivalence.
3. Thyroid shield -- 4 nos
4. Lead goggles -- 4 nos

Site Renovation

1. Complete site renovation (including doors).
2. Lead lining
3. Wall paneling.
4. False ceiling
5. Required lighting.
6. 02 ton air conditions for X-ray and control room.
7. All electrical work of the site including DB.
8. Lead glass.
9. Sink installation.
10. Any required paint work.

Specifications for Optical Biometry:

SWEPT Source Optical Biometer

SWEPT Source for non-contact measurement and visualization of axial length of the eye, corneal curvature and thickness, anterior chamber, lens, retina, pupil and "white to white" with an integrated PC for the calculation of intraocular lenses and calculation of intraocular lenses after corneal refractive surgery. Data export to a PC or to office management systems. DICOM Gateway and networking features to EMR systems:

Minimum Measurement range:

Axial length 14 – 38 mm

Corneal radii 5 – 11 mm

Anterior chamber depth 0.7 – 8 mm

Lens thickness 1 – 10 mm (phakic eye)

0.13 – 2.5 mm (pseudophakic eye)

Central corneal thickness 0.2 – 12 mm

White to white 8 – 16 mm

Display Scaling:

Axial length 0.01 mm

Corneal radii 0.01 mm

Anterior chamber depth 0.01 mm

Lens thickness 0.01 mm

Central corneal thickness 1 μ m

White to white 0.1 mm

IOL Calculation Formulas:

Haigis Suite (includes Haigis, Haigis-L (for eyes following myopic / hyperopic LASIK / PRK / LASEK, Haigis-T (for toric IOL power calculation), Hoffer Q, Holladay 2, SRK/T

Interfaces:

Eye care data management system

Computer-assisted cataract surgery system

Data interface for electronic media record (EMR) / patient management systems (PMS)

Data export to USB storage media

Ethernet port for network connection and network printer

With Original Motorized Instruments Stand.

1. Specification of item.

i. Argon Beamer Unit for therapeutic intervention.

<u>ARGON BEAMER UNIT FOR THERAPEUTIC INTERVENTIONS</u>	01
<p>Gas outlet, Luer-lock connection for applicator PURGE key for flushing the applicator with argon gas Operating status indicator Label for classification of the unit as type CF. The unit should be defibrillation-proof. Connector for connection to the HF unit. Decompression pin Threaded connection for permanent installation Connection of the argon gas supply The electrode handles for argon-supported cutting and / or coagulation have separate connections for the supply of HF energy and gas. Argon Filling Level. Argon Cut The output power of the Argon Cut current can be set to up to 360 W. The Argon Cut current corresponds to the Pure Cut current with additional application of argon. Endo Argon a current for surface coagulation by ionized argon gas for use in endoscopy. The two currents Pulsed Argon I and Pulsed Argon II Argon Beam. 01x MABS GIT probe, reusable 2.3 mm in diameter 2.3 m length. 01x MABS GIT probe, reusable 3.2 mm in diameter 2.3 m length. 01x MABS connecting cable, 3 m – PIN connector. MABS GIT probe, Side Fire, disposable 2.3 mm diameter 2.3 m length. X 10. MABS sterile filter disposable x 50</p>	

Specification

Diathermy (Cautery).

Microprocessor based electrosurgical unit for normal and under water cutting usages
Values of cutting and coagulation power should be controlled through Touch screen size 6" or more.

Automatic self-test function & Audio and visual alarms on errors state/selection.

Operation in radio frequency range of 350-500KHz

Controls for cutting coagulation, spray, and different blends.

Two Monopolar and one bipolar output.

Monopolar cutting power 400 watts.

Bipolar cutting power 120 watts.

Bipolar coagulation power 120 Watts.

Monopolar coagulation power 200Watts.

Bipolar electrohydrothermosation for linear surgeries in future upgradation.

Should be compatible with the argon beamer by same manufacture.

Accessories:

Standard set of accessories

Reusable Rubber patient plate.

Double Paddle foot switch, explosion proof.

Trolley (Local made import quality)

Country of Origin & Manufacturer: USA/Western EU/Japan

Certifications: CE with MDD compliance